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a filter operatively coupled with the input, the filter removing the formant from the set of consecutive audio segments to produce a set of residue segments having a pitch;

a pitch detector operatively coupled with the filter, the pitch detector calculating the pitch of the set of residue segments;

an estimator operatively coupled with the pitch detector, the estimator producing a new set of residue segments based upon the set of residue segments and the calculated pitch; and

an inverse filter operatively coupled with the estimator, the inverse filter adding the formant of the consecutive set of audio segments to the new set of residue segments to produce an output audio segment.

23. (Amended) The apparatus as defined by claim 21 further wherein the given audio segment is [not ascertainable, the location of the given audio segment within the audio signal being ascertainable] missing from the plurality of audio segments.

Remarks

Claims 1, 2, 11, 12, 21, and 23 have been amended. Claims 1-31 are pending in this Application. Reconsideration and re-examination of this application is respectfully requested in view of the following remarks.

Claim Rejections – 35 U.S.C. § 102

Claims 1-31 were rejected under 35 U.S.C. 102(e) as being anticipated by Yeldener, U.S. patent number 5,890,108 (Yeldener). This rejection is respectfully traversed.

Applicant's exemplary independent claim 1 recites:

"1. A method of generating a new audio segment for an audio signal, the audio signal having a plurality of audio segments, the method comprising:
determining that a given audio segment is not ascertainable, the location of the given audio segment within the audio signal being ascertainable;

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locating a set of consecutive audio segments in the audio signal, the set of consecutive audio segments preceding the given audio segment and having a formant;

removing the formant from the set of audio segments to produce a set of residue segments having a pitch;

processing the pitch and the set of residue segments to produce a new set of residue segments; and

adding the formant of the consecutive set of audio segments to the new set of residue segments to produce an output audio segment.”

The Applicant claims a method for generating a new audio segment including the step of determining that a given audio segment is unascertainable. For example, as claimed in dependent claim 2, the given audio segment may be missing from the audio stream. The claimed method locates a set of consecutive audio preceding the given audio segment, and processes those segments to produce an output audio segment.

In contrast, Yeldener fails to teach or suggest a method for producing a new audio segment including a step of determining that a given audio segment is unascertainable. The Office Action suggests that Yeldener “teaches tracking the audio segments (Nth sample) during nonascertainable voice (col. 20 lines 10 – 40)”. However, the Applicant submits that Yeldener does not teach or suggest the claimed step of determining that a given audio segment is unascertainable.

This section of Yeldener deals with speech enhancement. Here in Yeldener, it is explained that transitions that fall within a single frame cannot be represented accurately (col. 19 lines 65-67). It is explained in Yeldener that:

“...one approach to satisfying this tradeoff is the use of frame-to-frame LPC interpolation. Generally, the idea is to achieve an improved spectrum representation by evaluating intermediate sets of parameters between frames, so that transitions are introduced more smoothly at the frame edges without the need to increase the coding capacity.” (col. 20 lines 18-23)

Yeldener makes use of information in addition to that contained in a frame. There is no suggestion in Yeldener that any of the frames are unascertainable – e.g. missing, corrupted, etc. Yeldener does not address the issue of how unascertainable frames are dealt with. Because Yeldener fails to teach or suggest the Applicant’s claimed step of determining that a given audio segment is unascertainable, Applicant respectfully

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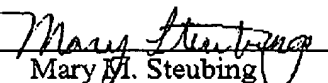
requests that claim 1 and its dependent claims 2 – 10 be placed in condition for allowance.

Applicant's independent claim 11 claims a computer program product for use on a computer system for generating a new audio segment for an audio signal, including program code for determining that a given audio segment is not ascertainable, the location of the given audio segment within the audio signal being ascertainable. Because Yeldener fails to teach or suggest the Applicant's claimed program code for determining that a given audio segment is unascertainable, Applicant respectfully requests that claim 11 and its dependent claims 12 – 20 be placed in condition for allowance. Applicant's independent claim 21 claims an apparatus for generating a new audio segment for an audio signal, including a detector for determining that a given audio segment is not ascertainable, the location of the given audio segment within the audio signal being ascertainable. Because Yeldener fails to teach or suggest the Applicant's claimed apparatus including a detector for determining that a given audio segment is unascertainable, Applicant respectfully requests that claim 21 and its dependent claims 22 – 31 be placed in condition for allowance.

Conclusion

Accordingly, Applicant asserts that the above claims are now in condition for allowance. An indication of such is respectfully requested. Should further questions arise concerning this application, the Examiner is invited to call Applicant's attorney at the number listed below.

Respectfully Submitted,


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